

AMERICAN BEE JOURNAL

DEVOTED EXCLUSIVELY TO BEE CULTURE.

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Correspondence.

Correspondents should write only on one side of the sheet. Their best thoughts and practical ideas are always welcome; no matter how rough, we will cheerfully "fix them up."

For the American Bee Journal.

Gallup's Corn as a Honey-plant.

In reply to persons who have made application for corn, we will say that it is climatic or atmospheric influence that causes a plant to produce Bee-forage in one locality, and not in another. For example, Mr. Adair and others say that buckwheat never produces anything in the shape of Bee-forage in their climate, while in my climate, both here and in Canada, it never fails to produce an abundance in ordinary seasons. The partridge pea is highly esteemed around Washington, while here Bees did not visit it at all. Timothy or herds' grass produces large quantities of pollen while in bloom here and elsewhere. We have seen fields of it literally covered with Bees while in bloom, yet we have never seen it mentioned as a Bee-plant. In 1870-71 our fields or patches of pop corn, smelt corn, or flint corn, were alive with the hum of the "little busy Bee," while it was in bloom. They seemed to gather pollen from the blossoms and honey from the silk at the same time. Then the corn silk glistened with sweet, yet in 1872 not a single Bee did I see visit it; and in fact white clover produced nothing in my vicinity in 1872.

Our old stand-by, the basswood, only produced forage for eight days in 1872, while in 1870, it lasted twenty days; and in 1871, it lasted in all, nearly thirty days; all owing to climatic and at-

mospheric influences. If the atmosphere is moist and warm, and well charged with electricity, then is the time our flowers produce the most forage. On the contrary, the atmosphere may be dry and warm, or hot, and flowers produce nothing. But by heavily manuring a piece of land for white clover or buckwheat, we can cause it to produce honey in a dry or cool season. Manure warms up the land, and it also causes a vapor or moisture to arise from the soil, which does not arise from an impoverished soil. We have noticed this repeatedly. We have seen a row of current bushes alive with Bees, that had been heavily manured the season previous, while a row that was not manured was not visited by the Bees. We have seen a four-acre patch of white clover that had been heavily manured the season previous, covered with Bees, while the clover field by the side of it was not visited by a single Bee. We have had some buckwheat on poor land, and on rich land at the same time.—That on the poor land was not visited, while that on the rich land was alive with Bees, and fairly scented the atmosphere with sweet around it. White clover on warm sandy land, produced abundance of forage the past season, while on clay soil it produced nothing.

Now, Brother Bee-Keepers, you can easily see from the above why you do not want my kind of corn, or my kind of hay, &c., for Bees. E. GALLUP.

Orchard, Iowa.

DZIERZON watched a queen Bee when laying, and noticed that she laid eighteen worker eggs in three minutes. She appeared to dispatch business still more expeditiously when laying drone eggs.

For the American Bee Journal.
A Letter from Kansas.

EDITOR JOURNAL: The past season has been to the Apiarist the poorest for years in this section of the State. The causes to which the general failure is attributed, are many; among the most prominent that might be mentioned were the cold Winter and backward Spring we passed through, which had the tendency to reduce the colonies to a few handfuls of bees (as a general thing), and the negligence on the part of many to stimulate and build them up early in the season. Consequently, when the early blossoms came there were no Bees to gather the honey. Most of the stocks, however, were pretty strong by the 20th of June, and in fair condition for the basswood harvest; but unfortunately the blossoms failed to secrete any of the sweet fluid. From the 1st of July to the 24th of September, we were subjected to drought, with very warm, sultry weather, causing a complete failure in the Fall flowers. It is very easy to perceive that we are not placed in an enviable position so far as the profits of apiculture are concerned. I was informed last week by a gentleman who has been in the business fifteen years, that out of sixty colonies with which he started last Spring, he has made no increase in his number during the season, and, unfortunately, has not obtained one pound of surplus honey. He farther states that two-thirds of his stocks do not weigh as much now as they did last March. You can draw your own conclusions. I have mine, which are, that in the Spring of seventy-four there will either be quite a demand for Bees, or there will be a large number of disgusted Apiarians.

As for myself, I do not profess to be anything but a beginner at the business; and I do not keep them for the profit, but for the pleasure derived from obtaining knowledge under difficulties. I started with one colony last year, I increased that one to five, and obtained about thirty pounds of surplus honey; lost one during the Winter. From four, have increased during the past season to eight; but have obtained no surplus honey. This is not a bad beginning,

considering the disadvantage of residing in the heart of a city of twenty-seven-thousand inhabitants.

I have all my colonies in good condition, by feeding sugar syrup in November—six in the cellar, and two in an experimental hive outside. If this should prove a success, I will, in the Spring, furnish your readers with a full description of the method, and give them the benefit of it. Lou.

Leavenworth, Kan.

For the American Bee Journal.
Pollen.

In Vol. 9, page 28, I made the assertion that brood could not be raised without pollen. On page 27 J. Butler experimented in this direction, and declares that his Bees did raise brood without pollen.

Now, I must confess this somewhat astonished me, for it was contrary to all our knowledge and practice. I however believed Mr. Butler in his public statement, but still I thought there must be a great mistake somewhere. It however stimulated to further investigation, and I have come to the conclusion that he was right in his observation, but wrong in his conclusion, and in order to establish this I will quote high authority, but before doing so permit me to remark that it is admitted by all distinguished apiarists, both in Europe and America, that brood has been raised (to a limited extent, however,) without pollen *being visible*, as in Mr. Butler's case.

In Vol. 1, page 253, of the AMERICAN BEE JOURNAL, Dr. Donhoff, in analyzing the excreta of Bees, says: "What was left after again filtering could, from its insolubility, be only the remains of pollen. It appeared under the microscope like an indistinctly granular mass." When I first saw the above, I at once came to the conclusion that pollen was retained in the bodies of the Bees for sometime, and the following further convinced me, as well as solved the mystery.

Baron Berlepsch, on page 230, Vol. 1, says: "It has been demonstrated that common workers are produced in colonies which have not a particle of pollen

in their hives, and at a time when the Bees could not gather any. * * * But it is by no means easy to determine when there is an entire absence of pollen, or its essential equivalent in the hive."

There may not be a particle of it discoverable in the cells, and yet a store of it amply sufficient for the needs of the larvæ may be deposited in the stomachs of the workers, or their general organism. I hope, from the above, Mr. Butler will see that his Bees had some pollen.

ARGUS.

For the American Bee Journal.

Good Bee Location—Rape Seed.

MR. EDITOR:—It is with a great deal of hesitation and a troubling of conscience, that I again ask for a corner in the JOURNAL, for I have already had rather more than my share of "space." But there are a few words that I would like to say.

Mr. Colburn, in the December Number, would like to know where he can find a good place to start an apiary, not too far from Chicago. Now, I don't wish to boast of my locality, nor would I like to coax any one here, lest he should afterwards be discontented and then blame me for so doing. Therefore, I would say, that he could find many such places as he mentions, between here (Berlin) and Milwaukee,—there is plenty of Basswood; and the country is old enough so that white clover has well set in, wherever it has an opportunity to grow. In addition to this, we have plenty of buckwheat—at least in this vicinity—and also many cranberry marshes, which were referred to as being of value, by the editor, in the November Number of the AMERICAN BEE JOURNAL.

Berlin is about 180 miles from Chicago, and can now be reached without change of cars, *via* Milwaukee, which is 90 miles from Chicago.

If the gentleman wishes further information I shall be glad to answer his questions through the mails. The best way, however, to ascertain the truth, would be to pay us, or this part of the country, a visit.

Mr. Frank W. Chapman gives a report from his rape seed. I am sorry he is so sensitive as to give up its culture, because his neighbors make fun of him about his "turnip patch." But I don't see any fun in it. Mr. Dadant and my brother, in Illinois, planted turnips *expressly* for Bees; and I can't see where the laugh comes in. But some people are, perhaps, more easily amused than your humble servant. He further states that he thinks it was too dry. Well, from what I have learned about the weather in Illinois last Summer, I should think it *was* too dry. Mr. Dadant reports nearly an entire failure, 1,000 lbs. only, from 230 stocks, I think, because of the severe drought.

Rape seed should be planted on good, rich soil—soil where wheat or other grain has been raised, will be good, because grain will leave that portion of nutriment in the soil which rape requires—and, of course, the weather must be favorable for it, as well as for other farm products. Lastly, the time for harvesting must be well watched; as soon as the kernel is filled and turns, cut it; and as soon as sufficiently dry, haul it in.

Mr. Editor, the December issue is, in my judgment, of extraordinary interest. Long live the AMERICAN BEE JOURNAL! for it is the "right bower" in the pack of different Bee journals that adorn our shelf.

J. D. KRUSCHKE.

Berlin, Wis.

For the American Bee Journal.

Chips from Sweet Home.

Two years ago I lost six hives by disease, and last winter I lost fifty-five hives, being all I had. They were left on their summer stand. This Winter I put ninety-five hives in my cellar during the first cold snap, all but seven were put in three days after they flew, the seven two days later, Nov. 28th. I now have four cases of the disease out of the seven. They have been very uneasy ever since taken in. My cellar is 20x24, the sides and bottom are cemented, a chimney built on the bottom of the cellar, with an opening at the bottom in which there is a continual draft, besides four windows which I open nights to cool

the cellar and close daytimes. I have never given my opinion as to the cause of the disease, for I had none. I noticed Bees which were housed *early* escaped the disease.

I will now give what I suppose to be the cause of the disease, and if there are any exceptions we shall be pleased to hear them.

All Bees which have died of the disease have been exposed to a *week or more* of cold weather, during which time they gorge themselves with honey, if then they are moved into cellars or Bee houses, or are kept confined by cold weather so that they are unable to empty themselves, dysentery will be the effect every time.

Will "Novice," or others who have fed sugar syrup, try an experiment as follows? Leave a hive out during a week or more of cold weather, then, without allowing them to discharge, take them in a Bee house or cellar, and report the result.

To-day I set the four ill-fated hives out and let them fly.

D. D. PALMER.

Eliza, Mercer Co., Ill.

Bee Notes from Darwin.

Bees have solved a recondite problem. They have made their cells of a proper shape to hold the greatest possible amount of honey, with the least possible consumption of precious wax, in their construction.

No human workman is skilful enough to do what a crowd of Bees can do—working in a dark hive—make cells of wax of the true form.

The number of humble Bees in the country will depend upon the number of cats! How can that be? Because the number of Bees is dependent upon the number of field mice, which eat the Bees. Hence the more cats, the fewer mice; and the fewer mice, the more Bees.

If the whole germs of Humble-Bees became extinct, or very rare, the heart's ease and red clover would become rare or wholly disappear. How is that? Because Bees promote the growth of those flowers. The visits of Bees are necessary to the fertilization of some kinds of

clover, and almost indispensable to the fertilization of the heart's ease, for these Bees do not visit this flower. Humble-Bees alone visit red clover as other Bees cannot reach the nectar.

In a word—no Bees, no seed; no seed, no increase of the flower. The more visits from Bees, the more seeds from the flower; the more seeds from the flower, the more flowers from the seeds.

Nearly all our orchidaceous plants absolutely require the visits of insects to remove their pollen-masses and thus to fertilize them.

Twenty heads of unprotected Dutch clover yields 2,990 seeds. The same number protected from Bees produced not one seed; 100 heads of unprotected red clover yielded 2,700, and the same number protected from Bees not a seed.

Pruning Broods.

Pruning brood combs is generally quite unnecessary, in fact is more often injurious than otherwise. If they ever require excision, it can only be when they are so overcharged with pollen as to render breeding impossible, in which case the operation should be performed in the Spring. Pruning them after the Bees have swarmed and cast, is very unwise for several reasons. First, there is a possibility that during a glut of honey, the Bees would build an excess of drone comb, or supposing their queen to be lost, that they would build drone comb exclusively, if any; second, that having to replace the excised comb, they would be less likely to yield a surplus in their super; and, third, there is the undoubted fact that Bees winter much better in old combs than in new ones, because being coated with so much silky fibre, they are the warmer of the two, and again there is the chance that in an unfavorable season they may be unable to build any comb at all.—*British Bee Journal*.

A person who has familiarized himself to Bees, can by means of the passion of fear impressed upon them, and by that dexterity in the management of them, which can only be acquired by practice, manage Bees as he pleases.—*Wildman*.

Bee Keeping for Farmers.

Some have adopted Bee keeping as the business of life; and these have mostly attained a flattering success. Others engage in it as a pastime and amusement chiefly.

Apiculture has made great advances of late years. The intelligent Bee-keeper no longer consigns his favorites to a hollow log, or rude box, nor what is even worse, to any of those absurd contrivances which have proved the ruin of thousands of happy colonies of Bees, and provoked the disgust of their unfortunate owners. But providing himself with some form of movable comb hive, well constructed, and having a sufficiently capacious brood chamber (or main apartment) and suitable arrangement for surplus honey, he enters upon the pursuit with fair prospect of success. Those who have once learned how to keep Bees, will not soon abandon the pursuit.—*Western Agriculturist*.

For the American Bee Journal.

Queen-breeding and the Cost of Italian Queens.

I was once amused by a would-be wise Bee-man, under the following circumstance: I was on my way to introduce a number of Italian queens for a friend, when I reined my horse up to a watering trough, and the following dialogue took place:

What is that in your buggy, boxes of honey? (inquired Mr. Johnson, a portly farmer.)

No sir, I have some Italian Bees and queens in those boxes.

Now, Mr. Davis, you are doing wrong in scattering all those yellow jackets through the country. They are running the black Bees out, and they won't work, they don't make any honey. What do you get for those queens?

They are worth, when safely introduced, five dollars each.

Five dollars each! Oh! I thought you was a Christian man. Five dollars each—It don't cost anything to raise queens; not more than it does to raise flies.

I replied, Mr. J., you may possibly lie under a misapprehension of the facts

in the case. If Italian Bees were as you describe them, they would be quite likely to perish during our long, cold Winters. But, sir, you are quite mistaken about the industry of the Italian Bee; and I would like to ask how much experience you have had in queen raising?

Oh! I never raised any queens, but my Bees always have queens enough.

We argued the case at some length, but he "would not be convinced." Mr. J. was one of those men who hold to an error on any subject, with the same tenacity as to the most precious truth.

But let us try the figures on the cost of rearing queen Bees for the market, as it appears that an erroneous view has obtained in some quarters. Queen-breeding, like any other enterprise, should be prosecuted in the best modes of the art, to secure the best results. To do this we think that the nucleus system proposes the most advantages for producing queens in any considerable quantity. We will make an estimate of the results of 100 nuclei hives. The first item of expense will be the cost of hives, which for getting up in good shape, ready for use, will cost about one dollar each, or \$100.00 for the lot. To stock 100 nuclei with Bees, say by the first of May, will require the Bees and most of the combs of twenty-five fair stocks. To produce the sealed queen cells will take the labor of about ten stocks more, making thirty-five stocks.

Now for the results: In this latitude, good queens can not be produced more than four months in the year, viz., May, June, July, and August; and a good average is 400 queens for the season. Now let us see what our thirty-five stocks should produce in honey if not used for queen breeding. It has been estimated at 200 pounds extracted honey per stock, some stocks yielding 300 pounds. But we will take the lowest figure, 200 pounds each, or 7000 pounds, which at sixteen cents per pound would be \$1120. Add to this the labor of an experienced Apiarist, which for the four working months would be reasonable at \$100 per month—\$400. Add to this the difference in the value between thirty-five first class stocks with their increase,

and 100 nuclei hives, say \$275, and we have a total of \$1795 as the cost of 400 queens—or \$4.49 each.

We consider the above a fair estimate for any locality where strong colonies will average 200 pounds each, surplus honey. In less favorable localities the cost would be reduced. But where stocks could collect from fifty to fifty-three pounds per day, the cost of queens would be very much increased. In our estimate we have omitted a number of Items on each side of the question, but as they would so nearly balance each other, they would not materially affect the result.

W. J. DAVIS.

Youngsville, Pa.

For the American Bee Journal.

Feeding Bees out-doors the first days of December.

Thus far we have had a very favorable Fall and Winter for Bees. Only about one week ago, I was doing what perhaps ought to have been done sooner, viz., feeding up with sugar syrup a few of the weaker colonies. The weather was balmy and nice, and the Bees very lively; and for about three days, I had them very busily employed.

My mode of procedure was thus: I took some tin plates, and after putting straws, little chips, etc., as rafts and foot logs for the Bees, I removed the back glass partition of the inner chamber, and slid the plate, full of syrup, under the lower ends of the combs, on the top of the bottom of the frames, and as near to the cluster as possible. This is the best way I have tried to get the Bees to do "big work." When empty (which can be seen without opening into the brood-chamber), the plate can be replenished from the top of the hive through a hole in the honey-board. In this way they do not have any cloth to penetrate first, but have only to crawl down the cluster, which forms down to the syrup, and help themselves. Robber Bees did not trouble much, but one or two of the weakest I kept closed while feeding them. I will put these hives in the cellar whenever the weather is severe, and if they

are troubled with *Asiatic cholera* in the Spring, I will let you know it.

Black Jack, Kan.

M. A. O.

Bee Keepers' Association of Mississippi.

At a meeting held at the Fair Grounds, Jackson, Mississippi, on Saturday, the 15th of November, 1873, the following named gentlemen organized themselves into an Association, to be known as the Bee-Keepers' Association of Mississippi.

W. F. Standefer, Dry Grove, Hinds county, Miss.; L. F. Alford, Jackson, Hinds county; P. F. Rajan, Pelahatchie, Rankin county; S. R. Sorsby, Spring Ridge, Hinds county; T. A. Catchings, Jackson, Hinds county; M. P. Simpson, Jackson, Hinds county; D. M. Wilkinson, Jackson, Hinds county; J. M. Shaw, Jackson, Hinds county; F. S. Hunt, Jackson, Hinds county; D. V. Culley, Madison Station, Madison county; J. E. Goodlett, Terry, Hinds county; E. W. Cabaniss, Clinton, Hinds county; W. D. Smith, Edwards, Hinds county; J. W. Ennis, Auburn, Hinds county; J. S. Barfield, Jackson, Hinds county; Joseph Gray, Raymond, Hinds county; Col. Johns, Boltons, Hinds county; J. J. Lester, Jackson, Hinds county; W. S. Cable, Clinton, Hinds county; O. P. Wright, Jackson, Hinds county; George Boddie, Jackson, Hinds county; N. S. Elkins, Brownsville, Hinds county; S. J. Carter, Mississippi Springs, Hinds county; S. P. Bale, Jackson, Hinds county; T. W. Harris, Jackson, Hinds county; A. J. Frantz, Brandon, Rankin county; C. W. Hicks, Clinton, Hinds county; E. M. Alford, E. Cook, Dr. W. F. Graves, John H. Echols, L. F. Childs.

The following resolutions were adopted:

1. RESOLVED, That this Society shall be known as the Bee-Keepers' Association of Mississippi.
2. RESOLVED, That the annual meeting of this Association be held at Jackson, Mississippi, at the time of the State Fair, or at such other time and place as the President may direct.
3. RESOLVED, That we ask the co-operation and aid of all interested in Bee-Keeping, by reporting their successes and reverses, through the columns of the FARMERS' VINDICATOR.
4. RESOLVED, That a committee be appointed to examine and test all Apian improvements, that may be sent to this Association, and report on the same.
5. RESOLVED, That we tender our thanks to the Editor of the FARMERS' VINDICATOR, for the use of a column in his paper for the benefit of our Association.

L. F. ALFORD, President.

W. F. STANDEFER, Secretary.

The following officers were elected to serve for the ensuing year:

L. F. Alford, President, Jackson, Hinds County.

Dr. T. A. Catchings, Vice-President, Jackson, Hinds county.

W. F. Standefer, Secretary, Dry Grove, Hinds county.

Joseph Gray, Treasurer, Raymond, Hinds county.

The following committee was appointed under the fourth resolution: S. K. Sorsby, W. F. Standefer, W. S. Elkins, F. S. Hunt and Jas. Barfield.

The Bee and its Winter Habits.

Valuable extracts from an address delivered before the Bee-keepers' Convention, by Prof. A. J. Cook, of the Agricultural College, Lansing, Mich.

MR. PRESIDENT:—I think I hazard nothing in the remark that no manual labor pursuit yields as great a per cent. on the capital invested as apiculture. During the season just past—in no wise an extraordinary one as to the honey harvest—my Bees have netted me over \$33 per colony, about 200 per cent. on their value. Add to this the fact that I started with only one Italian colony, and have Italianized my whole apiary, and you are enabled to see that the profits of Bee-keeping are by no means inconsiderable. And this is not an isolated case. It is to be hoped that all of you are subscribers to that most excellent periodical, the AMERICAN BEE JOURNAL, of Chicago. In that you have read of Adam Grimm, of Wisconsin, with his several apiaries and immense returns, which are often fairly startling; of A. I. Root, of Ohio, who is doing wonders not only in obtaining prodigious returns of honey, but in fostering apiarian pursuits.

Yet I would not assert that this bright picture of profit—and I might aver of real pleasure, as well—has not its shadows. The agriculturist has his droughts, the pomologist his dreaded blasts of Winter, the merchant his eras of depreciated stock, so also the bitter is mingled with the sweet in the apiarist's cup, and how many apiarists all through our country, since the bitter experience of the past two Winters, have little of the sweet in their expression as you speak to them of Bee-keeping. They too can speak of the Winter of their discontent.

Let us therefore analyze closely the dangers in the way of successful Wintering of Bees, in the light of their history and habits, and see if we may not at least *hope* to avoid in future the stumbling block which has so essayed to overthrow us in the successful prosecution of our favorite business.

That Bees will endure very severe

cold is certain; that they are ever so frozen as to be thus destroyed needs proof. I knew a colony of Bees to winter well during the terrible cold Winter of 1871-2 in a hive with an unsealed crevice, and resting on the summer stand. Now all animals while hibernating take no food nor exercise, hence there is little destruction of tissue, and little exertion. Now it is not probable that, could we keep our Bees during all the months of Winter at an even temperature—at about the freezing point, or a little above—they would, if normal and healthy, Winter well, and consume scarcely any food at all. Does not this explain the not uncommon phenomenon of strong colonies wintering on three or four pounds of honey?

Now, if the above proposition can not be disapproved, is not one of our chief desiderata in wintering to secure such conditions as will insure even temperature?

With the best management there will doubtless be more or less food consumed during Winter; hence good food is indispensable. By good food I mean good thick honey gathered from the flowers, and all capped over, or else coffee A sugar fed by the middle of September, or so early as to be all capped over before Winter and rest comes on. Again, during the early Spring breeding must commence. This only follows upon warmth, activity and food-taking. Thus we need not only good honey to serve as food for the mature insect, but there must also be an ample supply of pollen or Bee bread, that the larvæ or immature Bees may receive proper food. Hence we conclude that our second desideratum, in successful wintering, is to have the stores which are designed for Winter consumption, of the best quality, and also a sufficient amount of Bee bread that the early Spring brood may not lack nourishment.

Again, it is a truth well understood by all physiologists that the greater the animal's activity, the more rapid the destruction of tissue, and unless the tissues can have periods of rest, they will soon become powerless to perform their allotted function, and hence death must result. Suppose we should labor constantly, taking no rest, how soon would

we succumb, becoming victims of unremitted toil. Would we keep our muscles in good condition we must give them stated intervals of rest. Thus we understand the phenomenon of sleep, which is only a generalization of that necessity which causes the woodman to lower his axe, being an imperative requisite to the recuperation of a tired body, a body so exhausted that the nerve as well as muscular system needs to rest.

Now, in the light of the above, can we wonder that the "busy Bee" ever active to obtain the most from a not over long harvest—or in quest of that which is not so busy that the apiary not only swarms with life by day, but sends forth the full, joyous note of industry all the hours of the long night through, should present a longevity so brief. Is it not beautiful, and does it not merit our gratitude—this fact that the little Bee becomes a willing martyr to the love of storing? Because of this unrivaled activity, the worker Bee lives only from two to three months. Now, suppose the queen ceases laying the last of August, as she is quite sure to do, if old or poor, especially if the Bees are gathering no stores. By the time Winter sets in the Bees will all be old, and in the Spring the few that have survived will endure but few flights, so that colonies—as was the case with so many in our State during the past season—will Winter through, only to succumb to the more genial spring days, giving no signs of dysentery, nor yet of starvation.

So again, it is probable that to insure certain success in wintering, we must see to it that breeding continues well into the Fall, that every hive shall have brood in October.

Mr. Hosmer, of Minnesota, was the first, as far as I know, who gave this explanation, and reason certainly sustains the view, unless forsooth, the Bees that are old in Fall, revive by the long Winter's rest, renewing their youth. So we see, to uniform temperature in Winter, and sufficient and the right kind of stores, it is well to add the advice suggested by the above, to so manage as to have the brood reared in our apiaries late in the Fall.

Our last theory as to disastrous wintering is an entirely visionary one; Epidemic—a very convenient explanation for we seem to give a reason, yet when we analyze it, it is no reason, nor are we usually able to give a reason when we decide thus.

A few years ago the chinch bugs, which for a long time had been very numerous and destructive in Illinois suddenly disappeared. Dr. Shimer, a distinguished entomologist, at once pronounced it epidemic. Later experience demonstrated that excessive rains banished them. That exceeding dampness is, happily, very destructive to the chinch bug. So too the silk worm epidemic in France, yet the thorough and most praiseworthy researches of Pasteur, brought to light the real cause of febrine, and consequently the cure was made known and silk-culture saved from utter extermination.

So too in Bee diseases, I fully believe that the maladies which have been so disastrous the past two Winters come, as any one may prove, within the easy range of our understanding, and escape. Should I be mistaken, or should a more intricate trouble appear among us, we need not even then despond, for the experience of the past bids us rest firm in the hope that with careful study, making use of the appliances which science brings to our aid, we shall be able to explain and conquer the most complicated disease.

Now having the theory of safe wintering before us, which, as we have seen, combines even temperature a little above freezing point, good and sufficient stores, and late Fall brood, let us examine and see if there be any experiments or experience that will sustain this theory.

The past Winter I buried my Bees in snow, making them the nucleus of a snow bank from the last of November till the 1st of March. The result was, they preserved an almost death-like silence, consumed very little honey, and in the Spring there was not in any hive a sufficient quantity of dead Bees to fill a small tea cup. In fact, I never saw colonies appear brighter, or do better than they did. It has long been the opinion of observing Bee-keepers, found-

ed on experience, that even Winters, with steady, continuous cold, are far less disastrous than changeable ones where there are many periods of warm weather.

Again, those who have cellars, or special depositories where they are enabled to keep the temperature uniform, have always been the most successful.

This also explains the—what some would call absurd theories of Gen. D. L. Adair, of Kentucky, and Mr. Balsch, of our own State, that Bees require no ventilation to ensure safe wintering. If in an even temperature, never rising above 35° F., the Bees are so dormant that they really do need very little air. To prove this I froze up the opening of one of my snow-bound hives, last Winter—the entrance of all of them were deeply covered with snow—so that it was hermetically sealed, and yet, I never had a colony Winter better. There was not a tablespoonful of dead Bees on the bottom of the hive in the Spring. This at least tends to prove that Bees, if kept from getting too warm, will need not only very little food, but also very little air. That it is not from cold Winters that the Bee-keeper need have apprehension, but from periods of sufficient heat to arouse the Bees from their torpor.

We next speak of the kind of honey. In the Fall of 1871-2, I placed twelve colonies of Bees in a dry, dark and quiet cellar at the Agricultural College, where I had for years kept Bees from the last of November till the last of March, without any loss. The previous Autumn had been, as you will remember, unprecedentedly dry. There were scarce any flowers in bloom, yet the Bees were very active gathering stores, even to the very verge of Winter. In October I prepared the colonies as usual for the cellar. Found much thin, unsealed honey. Supposing that it would thicken and be capped over in a few days, I took special pains to leave it in the hive, taking out all the nicely capped honey which they had stored early in the season. I did not sell all of this nice honey, but kept a little of it over.

Having placed the Bees in the cellar at the approach of cold weather, the last of November, not dreaming that

any bit of harm could come to my pets, I left the college, not returning till the last of January. Imagine my surprise upon visiting my Bees, at finding that the usual and supposed quiet had given way to a terrible uproar. Upon examination I found over half the colonies dead, and the five that were still alive were in a sore condition, indeed. I selected one colony, in no wise better than the others, on which to experiment. I assure you, faith added not a whit to my success. I took my fresh, good honey and placed it in the hive, taking out all that was tainted or besmeared. My surprise was equal to that of the prophet, for those "dry bones" did live, and that colony netted us about \$80 the next Summer. I need hardly say that the other colonies all died, though I gave them all the opportunity to drop their feces. The honey proved to be still thin and uncapped and very unpleasant to the taste—in fact, fairly sickening. The odor of the diseased colonies, caused no doubt by their excessive discharges, was also very nauseating.

I now think that the real source of the honey was in the insect secretions—though I did not think of it then. The dry Fall was very favorable to insect life. Our beach trees were fairly covered with a plant louse—(*Pemphigus imbricator*, Fitch.) Other nectar-secreting plant lice were very abundant. On the Tulip trees were hosts of large bark lice—a species of *Lecanium*, which also secreted a sweet substance—we may call this honey dew. I think louse secretion a more fitting cognomen. Now, as the Bees were seen constantly swarming in these trees, is it not more than probable that this was the source of the bad honey, and the cause of the terrible Bee malady of the Winter of 1871-2? I visited and examined a good many apiaries around Lansing and Owosso, some of which had escaped, while most had met this fatality, and it seemed to me that both of these conditions could be easily accounted for on this theory of poor honey, we only having to consider locality and management.

As many of you know, Mr. Hosmer, a very intelligent and successful apiarist, of Minnesota, accounted for the terrible

fatality of the Winter of 1871-2 by the absence of Fall brood in the hive. Now, while I was sure that this was not the correct explanation in the vicinity of Lansing, as I never knew my Bees to have more late Fall brood than during that Autumn, yet I thought that it might account for loss in some localities where the extreme drought precluded any late bloom, and where there were perhaps no nectar-secreting insects; especially as it was not difficult to find localities where Bees had died without appearance of dysentery. So during the Summer of 1872, I removed the queens from two colonies, preventing the rearing of brood from August till late Fall. In all other respects these colonies were treated the same as the remaining colonies of my apiary. All the colonies wintered well, with no appearance of dysentery, but these two died off so rapidly after setting them on the summer stands, that in a very few days my apiary numbered two less colonies. Those which had brood October 1st the preceding Autumn, not only came through the Winter, but have done exceedingly well during the past Summer. Hence, so far as this experiment goes, it proves that successful wintering demands that we should keep our Bees breeding well into the Fall. I quite believe that neglect in this particular was the direful spring of last Winter's woes—especially about Lansing.

Do you ask then, how would I prepare my Bees for Winter? I most cheerfully answer:

1st. I would arrange to protect them against warm winter weather, by so guarding them that they would not feel it.

This may be done by preparing a thick, double-walled special depository, by placing them in a cool, dark, quiet and dry cellar, which is beyond the influence of changeable weather; or, if it is preferred to leave them on their summer stands, by either making them the center of a huge snow bank, in which case caution must be taken to so arrange that water from melting snow can not run into the hives. (The wind-break of the apiary might be so constructed that nature would bank up the snow

for us, by placing our screen a little to the west of colonies which we wish to protect); or, by putting the hives near together, we could place boards about them, and pack in with saw-dust, straw or shavings, and thus protect them from the changes of Winter. Yet, if we are not sure to keep them cool and quiet, we must be careful not to stop up the entrances to the hives.

To secure good Winter stores we may either follow Mr. A. I. Root's suggestion, extracting the honey and feeding a syrup made of coffee A sugar, a safe and economical method, as the honey is worth enough more than the sugar to more than pay for the trouble; or, we may take pains that they have none other than honey gathered from flowers and all capped over as soon as the buckwheat harvest is past. I should prefer, too, that they have a good quantity of Bee-bread, that there may be no hindrance to early Spring breeding.

Again, I would have none but very fertile queens, and be sure to have brood in October, even though in extreme cases I might have to feed to secure it.

I should have some empty comb in the center of the hive, and should prefer to have at least thirty pounds of honey in each hive, though if rightly managed, I should expect my Bees to consume but a small part of it.

Having made use of the above precautions during the past Winter, not only with my own Bees and those of the college, but also by suggestions securing the same in a neighboring apiary, wintering in all of the three cases was attended by the very happiest success, while so far as I know there was not another colony of Bees Wintered in the whole locality.

Now, Mr. President, I would not be too positive that I have got to the core of this subject of wintering Bees, for it behooves us all to be very slow to express opinions adverse to those entertained by such cautious, candid men, as Mr. Quinby and A. I. Root, and even more slow to generalize in matters complicated by life, where very many experiments are ever necessary to render us certain as to results. Yet I feel con-

fidant that the above suggestions have experimental foundation sufficient to merit a hearing, and I as fully believe that if heeded they will very materially change the complexion of apiarian pursuits in our State.

For the American Bee Journal.

"What Killed the Bees."

The answer given to this question by Mr. Quinby, in the December number of the JOURNAL, is—"cold." He says: "I have made diligent inquiry, and studied cause and effect with the best of my ability, and now repeat my conviction that cold is the cause of the failure to winter, dysentery being an intervening link." Again: "I know of nothing to produce dysentery, except cold weather." And again: "No doubt other causes destroy lives sometimes, but I have yet to find the first case where a large number, with sufficient honey, was lost, and cold not at the bottom."

Mr. Quinby, as well as Mrs. Tupper, to whose views on this subject he refers as coinciding with his, is deservedly high authority on apicultural questions. His long experience, close observations, and unquestioned candor, entitle his opinions to great consideration. But, at the wish of being considered presumptuous, I will take the liberty of stating a few facts in my own experience, which seem to me to refute this theory of Mr. Quinby.

In the Autumn of 1868 I had nine stocks, eight in box hives and one in a Langstroth, and all strong in numbers and rich in stores. They began to die about the first of November, some time before "cold weather" had set in. My attention was first attracted to the matter by an unusual number of dead Bees found in the morning before some of the hives, while the others were yet free from such trouble. The affected stocks continued to die, one or two of them so rapidly that before the last of November all of the Bees in them were dead. The surviving colonies were housed for Winter about the first of December, some of them at the time but slightly affected with the malady, and

others not at all. My house was made especially for the purpose. It was about eight feet square on the inside; had double walls, with the space of 10 inches between them filled in with saw-dust; and was slightly ventilated at the top. The temperature within was quite even, seldom falling below the freezing point in the coldest weather. With all this protection every Bee I had died with the dysentery before the last of February. All those hives had "sufficient honey," some of them having on hand thirty or forty pounds of solid comb; nor was it possible that cold was at the "bottom" of their loss.

As this disease was a mystery to me, I wrote to Mr. Quinby soon after my Bees began to die, for light on the subject, and received from him a very satisfactory answer. The cause, to which he then attributed the disease, was much more consistent with the facts, in my judgment, than that which he now assigns. It was *impure honey*.

In the Fall of 1871, I had over sixty stocks in Langstroth hives, which I put up for the Winter about the middle of November. These I placed in a dry, dark and warm cellar, under my kitchen and dining room. In the same floor I had kept through the previous Winter ten stocks, with the loss of not over half a pint of dead Bees to the whole lot, and on an average, by actual weight, of five and a half pounds of honey to the hive. This cellar is so warm that I have kept Irish potatoes in it, without any covering, through the coldest weather. My sixty odd stocks had not been in it over a month before they began to die with the unmistakable dysentery, and before the ensuing Spring, forty-three entire colonies had perished. It would be utterly absurd to assume that they died from cold, either directly or indirectly, for there was nothing cold about them. Nor did they starve. They had enough honey, such as it was. But the most of it was gathered late in the Summer, mainly from buckwheat. The prolonged drought in the latter part of the Summer had caused them to consume most of their early stores. The ten stocks that had Wintered so successfully the year before, had honey that was stored in the early part of the

season. This was the only perceptible difference in the condition of the stocks of the two Winters. If there was any difference in their temperature, the stocks that died were the warmer.

I have now twenty-seven colonies in the same cellar. They were stored away about the middle of November, and are now (Dec. 22nd) in excellent condition. About the 1st of October I found two or three of my strongest stocks literally starved to death. On further examination the serious fact was disclosed, that in the twenty-seven surviving stocks there were not *twenty-seven* pounds of honey! I immediately purchased a barrel of good coffee sugar, made it into syrup, and fed it to my Bees. They are now temporarily Wintering almost entirely on sugar syrup, a few of them only having the smallest amount of honey; and the less they have of it, the better, in my opinion.

It may be that cold will produce dysentery; but I feel certain that its absence, or rather, the presence of warmth, will not always prevent it. While Bees should be kept in a comfortable temperature, they should also have a pure and healthy diet. The food, my observation proves, is of more importance than the temperature. Why, or where, the honey is impure, I am not now prepared to say; but that it is at times unfit for the use of the Bees, I have no doubt. That good sugar syrup, well cooked, is a healthy and safe Bee food, I have demonstrated to my satisfaction. Hereafter, if the droughts do not render it unnecessary, I shall extract all the honey from my Bees in the Fall, and feed them upon syrup.

M. C. HESTER.

Charlestown, Ind.

The most complete check upon robbing Bees is to place a bunch of grass, or wet hay over the entrance to the hive. The Bees will find their way to the entrance to their own hive, the robbers will be caught by the sentinels in passing through the grass, and soon cease their pilfering. —*Exchange.*

Italian Bees increase faster and have many qualities superior to the black.

Translated for the American Bee Journal.

Dzierzon.

EXTRACT FROM THE HISTORY OF BEE-KEEPING IN THE GRAND DUCHY OF HESSE, IN COURSE OF PUBLICATION IN "DIE BIENE."

For the purpose of perfecting our essay, we shall here submit the general remark, that, not only France, who is well known to claim for herself the credit of all great discoveries and inventions, but also Germany has denied to Pastor Dzierzon the merit of having discovered anything new. They argued thus: The foundations on which the great discoveries of the present era rest, were present long before the appearance of Dzierzon; the incidental points at which the old and new eras separate, must be sought for where the first bright rays of light fell on that mysterious darkness of bee-life—the sexual relations of the three different orders of bees. Into this darkness, however, before Dzierzon's time, some faint glimmers of light had fallen; and he, like all great explorers of unknown territory, had his forerunners and pioneers. Already had a Janscha (died 1774), a plain farmer of Upper Carnolia and later, professor of Bee-keeping in Vienna, made, by his observations in the large apiary founded by the Empress Maria Theresa, the discovery that the queen is impregnated by the drone outside of the hive, and but once during her life-time. The discoveries of Schirack, that queens may be reared from worker eggs, was also earlier, as also his discovery of fertile workers. Based upon these discoveries, and also the investigations made by the Natural Philosopher, Raumer, did Francis Huber, with the eyes of his assistant, Burnens, (Huber having become blind in early manhood), make further observations, and located a chain of facts which spread a light over the natural history and domestic economy of the Honey-Bee. Then also the invention of the movable-comb system was worked out, in anticipation, by the frame or leaf hive, which served Huber in his observations, and was afterwards much improved by Morlot and others. Now,

only the man was wanting, able to make one grand, general experiment, embracing the preceding observations and discoveries; and who, like Huber, would be able, with unbending will, to pursue this new system of natural philosophy to the conviction of its opponents.

And this man was none other than Dzierzon. To desire to take away from him the merit of being the real founder and discoverer of this new system of Bee-culture, would be but the repetition of that old, and oft-repeated history, in which little minds seek to oppose the genius that discovered a new idea. This jealous spirit is so deeply implanted in mankind, that, among the ancients, it often served as a source of ridicule. When Pythagoras had discovered his renowned mathematical theorem, for thankfulness he offered to the gods one hundred oxen (hecatomb); and since that time it has been said, all oxen shudder when a clever thought is revealed to the world.

John Dzierzon, born in 1811, in a village of Middle Silesia, studied, in 1830, at Breslau, Roman Catholic theology, having at the same time, a strong inclination for natural history studies. In 1835 he was located as a priest at Carlsmarkt, in Silesia. His parish was small, and his labors light. All his spare time was given to practical Bee-culture, and the careful study of all the previously published Bee literature, and the careful testing of the various discoveries concerning the nature of the Bee. Of great value to him now, in his observations and experiments, was his arrangement of the hive with movable combs, which he used long before they were known in other circles. His first essays appeared in the *Frauendorfern Blattern*. His first contribution to the *Eichstadter Bienenzeitung* appeared in No. 12, of 1845, p. 122. Shortly afterwards, a new and improved system of Bee Culture, by Pastor Dzierzon, was published by Bruckisch, commonly called "Theorie and Praxis." So little profit did Dzierzon then anticipate from this valuable work, that he allowed it to pass into other hands, and it was published with various notes, which served to deteriorate

and mar it. Later, his supplement to "Theorie and Praxis," was published under commission by Beck, in Nordlingen. Since 1846, he has been a constant contributor to the *Eichstadter Bienenzeitung*, and, at the great annual gatherings of the German Bee-keepers, he is the king around whom they all cluster.

But he had a hard battle, until he had broken the way, and made such able opponents as Busch and Baron von Berlepsch, his friends and well wishers.

It is well known how he searched deeper into the natural history of the Bee, and called to his aid the honored Zoologists, Leuckart and Von Siebold. The result of all his scientific researches and practical experiments, he gave to the world in his great work, the second edition of which was published in 1869, by Schneider, in Mannheim, "Die Biene und ihre Zucht mit beweglichen Waben in Gegenden ohne Spätsommertracht." We are not exaggerating, when we call this work an achievement—an event which marked the beginning of the new era, since it is a storehouse containing within itself all the theoretical and practical knowledge of bees gained by past observation. More than this it points the way into those regions from which the vail has not yet been raised.

Is Black Comb Useful?

Black comb, unless it be very old and choked with pollen and filth, is as useful for breeding purposes as any other. For guide combs it is better than any other, as it is tough and will not break away from its fastenings as new comb will. Care should be taken, notwithstanding, to discard all comb from which the Bees of former seasons have not hatched out. Sometimes in old combs some cells may be observed from which the sealing has not been removed, some such cells may have small perforations in them, their crowns being sunken, and their contents dried up; others may still retain the remains of dead brood, but wherever these are seen the comb should be consigned to the melting-pot, for there is danger that the combs are infected with foul brood.—*British Bee Journal*.

For the American Bee Journal.

Novice on Wintering, etc.

DEAR BEE JOURNAL: Permit us to thank M. Quinby for his excellent and opportune article on Wintering, and also for the very fair and gentlemanly way in which he expresses it as his opinion that our views of the Bee disease are not wholly correct. If we have not been as respectful in expressing our views of some of the suggestions that he has advanced, and we fear such has been the case, we sincerely crave his pardon. In regard to the unkind way in which some other writers have persisted in treating us and perverting our language, we have nothing to add, more than that we shall never take the trouble to set them right. If the majority of our readers have misunderstood us in that way it is certainly time our regular contributions gave place to something more valuable.

In regard to Bees suffering with dysentery when properly housed, we will mention our own experience, first given in the JOURNAL, Vol. 4. The month of February that Winter was so warm for days together, that we could not reduce the temperature of our cellar below 50°, even by opening the door and windows nights, and every warm spell, it seemed to us then, only aggravated the disease. When we could reduce the temperature to 35°, the Bees became quiet, but nothing else we could do would keep them in their hives at all. A part of them were placed in the cellar in November, but the majority remained out until December. After placing them on their Summer stands, matters seemed no better, for they flew out and kept dying until May. Those who have followed our writings will remember that we have had such colonies every Winter since, more or less; and they have been invariably those that were allowed to have natural stores. Perhaps the Winter of 1869-70 may be considered an exception; for we then wintered every colony and they all had natural stores, which happened to be wholesome, as in years before.

Now in directing attention to those who have lost Bees carefully housed, in cellars, Bee houses, etc., we cannot

give a case where these repositories had been warmed by a stove, for we had no record of such an experiment. The principal trouble we apprehend is that Bees will leave the hives, even in the dark, when the room is warmed to 50° or thereabouts. In fact we have always had the most trouble in Wintering during warm spells. Last season we lost quite a number of small nuclei, which died under circumstances that convinced us that some kind of artificial heat might have saved them—*i. e.*, during times of very cold weather, such that the interior of our Bee house showed at times not more than 25°; but at the same time our strong colonies seemed to lose nothing.

After the coldest spell we have had this season, the weather changed suddenly, so quickly in fact, that while the walls, hives, etc., were near 32°, a stream of warm, damp air was pouring in through the ventilator to such an extent that everything was damp. A friend of ours, who has entertained the same opinion as Mr. Q., built a fire in a stove he had provided for the purpose, and raised the temperature quickly to 80° or more, and then let the fire go down before the Bees had time to become aroused. He says the result was quite satisfactory. His Bees, like ours, were confined to the hive with wire cloth. It may be that some such course will enable us to winter Bees safely, on natural stores even; and we shall be pleased if such prove to be the case.

We presume that Mr. Quinby, in speaking of the latter method, has taken into consideration the fact that Clover Honey now sells by the barrel at twenty cents, and that sugar syrup equally thick, costs not over eight cents. If a Bee-keeper had his honey in a barrel, and his colonies needed food, would he hesitate before deciding which to feed?

We would refer Mr. Quinby, to articles found in back numbers of the JOURNAL, to prove that Bees die, even when carefully buried, housed, or put in a cellar. Please see pages 5, 206, 253, 254, 261, Vol. v; 286, Vol. vi; 264, Vol. vii; 34, 92, 93, 248, Vol. viii. We call attention especially to the report of Mr. Johnsor, page 248, Vol. viii. Mr. J.

informed us in conversation, that he had thoroughly tried warming them in a warm room, etc., etc., but all without avail; and that sealed comb of the same honey given to a healthy colony brought from a distance, *will kill them in one week*, even in April. It is true that all of the above do not point in one direction; but they furnish a large number of facts.

We have at present a colony of Bees in a room kept constantly warmed up to from 50° to 60°. In spite of food, pollen, etc., and a wire-cloth house to fly in, we cannot induce healthy brood-rearing; but the Bees seem to be dying off every day, much faster, indeed, than those in the Bee house at about 40°.—We have had them thus for about three weeks. Although the queen lays eggs, no brood appears. The confinement seems to be very objectionable. They alight on the wire-cloth boundaries of their prison, and many will not voluntarily go back even at night.

Quite a large number of our Bee-keepers, with Mr. Gallup among them, contend strongly in favor of out-door Wintering; and such letters reach us from all directions—facts observed both practically and experimentally. Have you, too, abandoned double walled hives?

It may be proper to say that our remarks in regard to the hive which "Scientific" offered to furnish at 50 cents each, were intended only as pleasantry, and without the least feeling of ill nature. Should "Scientific" not feel inclined to accept the above explanation, we have nothing further to offer. He who will undertake to furnish *good* hives for 50 cents, or even \$1.00, will receive our earnest thanks for the good he will do our people, and we think we shall have no trouble in convincing the most incredulous of our sincerity. The hives shall be made to use any of the popular frames—those mentioned on page 266 of last June number, for instance, and the only other condition is, that they be approved of by the editor of the JOURNAL; and, to help the cause, we will pay for a standing advertisement of the same in this JOURNAL one year, unless some of those who find fault with our efforts will come forward and help pay for it, and thus show their disinter-

estedness. It is not "Novice," simply, you are opposing now, but the *cause of Bee-culture*. If you would see hives made to a gauge, like Elgin watches, stand up like a man, or "forever hold your peace." Chicago will perhaps be as central a point as any for the undertaking, and, what is better, will be so far from "Novice" that he can have no hand in it except to pay for an advertisement for the year.

We certainly did not mean to insist that Mr Muth had had no experience with Bee disease, we only conjectured.

Has no one else a word of encouragement for the fair stranger, Cyula Linswik, who has entered our midst? or are our sex all so intent on their own affairs that they cannot spend time to encourage real merit? In our opinion, the writer of those articles, although the information conveyed may not be of great practical value, has a power of delineation and a delicacy of touch, such as has never before, since Mr. Langstroth's book, graced Bee literature. Will both herself and "Sister Nellie" accept the thanks of one who means well, even if his efforts be at times ill-timed, and injudicious.

Mr. O. can certainly take off his box honey quicker than we could extract a like amount; but our honey would be all ready to ship at a low rate of freight by rail, while his would need considerable "fixing" before it could be safely shipped over one hundred miles at a like expense (see Dadant's articles). There is certainly no need that we should defend the cause of extracted honey longer, for attention seems being turned in that direction with a strong current from all sides.

Using cloth instead of perforated tin for feeding has been quite unsatisfactory, for the reason that if thick, it feeds too slowly, and, finally, not at all, after the syrup has dried on them; if the cloth was thin, the Bees gnawed through it, and then —

We are beset by reverses, as well as encouraged by occasional success. We still hope ultimately to succeed. To those who give us credit for feeling sincere pleasure in all the advances in Apiculture, we subscribe ourself as of old,
NOVICE.

Murdering Bees.

QUERY.—I have a straw skep with wooden top, in which my Bees were hived 18 months ago. They threw off a strong swarm last May, and I placed a super over them, containing a large and tempting piece of guide-comb, in which they made not a drop of honey. I took away the super early in September, and since then my Bees have been killing each other, hundreds lying dead under the hive, and I see them fight on the alighting board. The murdered Bees are all small compared with the generality of Bees in my hive, but certainly belong to it. These massacres take place at an interval of a week or ten days, and especially on Sundays. Can I prevent this?

REPLY.—We have had a precisely similar case in our own apiary during the past season. The Bees destroyed, were bred in the hive, but when a few days old were mercilessly massacred. The queen was a pure bred Ligurian, raised in May last, but from the backwardness of the season and the coldness of the weather we judged she had been imperfectly fertilized. Almost all her progeny were very small, had usually only one broad golden band across the abdomen, next the thorax, the remainder being jet black. They were pretty little Bees with sharp pointed tails, quite differently shaped to the ordinary Bees, and were evidently considered useless in hive. Having determined that the fault was with the queen we dethroned her, and gave the stock a fertile imported one, and since then all has been well. Whether the original queen (by stress of weather) became too old ere fertilization took place, or whether she met an imperfect drone, perhaps one of the progeny of a fertile worker which are said to be imperfectly developed we cannot say, but judging from our own case we think it probable your Bees will perish during the ensuing winter months unless you remove their present queen, and give them one whose progeny will be perfectly normal.—*British Bee Journal*.

In the Island of Madagascar, and the Mauritius Islands, a species of Bee is found (*Apis unicolor*) of a bright shining black, without spots or colored bands. The honey, which is highly spoken of, is at first of a green shade, but becomes reddish-yellow with age.

Plants and Trees.

BEE AGENCY NECESSARY TO FRUITFULNESS
AMONG PLANTS, AND THE SORT OF TREES
BEST FOR ORNAMENTAL PLANTING.

The name "honey," is said to be derived from a Hebrew word signifying delight. Whether or not this derivation is correct I cannot say, as I am no Hebrew scholar, but it seems very appropriate, as there is scarcely another word which has been so universally employed from the remotest ages, to represent what is delightful to the senses and as a figure of what gratifies the mental and moral perceptions. For this reason, amongst others, the labors and mysteries of the Bee-hive have been a source of profit and recreation to mankind in all ranks of life, as well as a fruitful fund of figures and illustrations to adorn the writings of poets and philosophers. Hence people can offer few truer forms of evidence of real sympathy with the most elevated and refined in past ages, than in the interest they take in this branch of rural industry. But aside from any interest in Bees as honey gatherers and waxmakers, there is another matter as important as this, arising from the service which Bees perform in the economy of nature in the fertilization of plants. All stock raisers understand well the importance of crosses in breeding. But few people are aware that the same principle holds good in the fertilization of fruit and flower blossoms. Which is to say, that though in the majority of plants the blossoms are perfect, each one containing the pollen necessary to fertilize the ovules, yet it is well known to botanists and horticulturists, that the pollen of one flower has a great deal more fructifying power on the ovules of another flower of its kind than upon its own, this causing the first to set better and adding to at least its quantity. Mr. Charles Darwin, Professor A. Gray, and other eminent botanists have proved that many flowers in which the stigmas may be easily dusted with their own pollen, remain sterile unless they receive pollen from other flowers. This cross fertilization is effected through the agency of Bees and other insects. All of which may be

easily demonstrated by covering some flowers with thin gauze, admitting light and air freely, but excluding the Bees, and letting others remain exposed for them to work on.

And it is a significant fact in this connection, that naturalists have never, thus far, been able to discover that the nectar or honey deposited about the ovaries of flowers is of any use whatever to them, except to attract the Bees and other insects; seeming to show that this is a wise provision of the Creator to secure fertilization. But I propose to discuss this matter more at length in a future article, in which I will attempt to clear the Bees of the charge of being destructive to fruit and grapes. I desire here merely to point out that the Bee-keeping interest, like every genuine industry, harmonizes with and promotes other industrial pursuits; and that a wise regard for the common good is manifested by consulting the wants of the Bees in selecting flowers, shrubs and trees to shade the streets, and beautify public and private grounds. Especially as this costs no more, and it greatly enhances the primary objects of setting out the trees by giving the variety which is essential to beauty. Now it so happens, that of the trees which are not evergreens, those which afford the richest pasturage for Bees are the handsomest and most valuable for ornamentation.

A certain proportion of locusts and maples would be well enough, but they have been set along every street and in almost every lot, till they are so common that they cease to please. How much the appearance may be improved can be seen on a few places about this city, whose owners years ago had the good taste to intersperse with these a variety of other trees less common and more beautiful. If one-half the locusts in and around Lexington were replaced by lindens and yellow poplars, the city would present a much more attractive appearance, and the Bees would have a better range for gathering honey.

The best districts for Bees are those from which the timber has not been removed. The yield of honey in the mountainous parts of Kentucky is much more certain and abundant than in the Blue Grass Region, where white clover

abounds, which has generally been supposed to be one of the best honey plants, but which has proved of late years unreliable. The reason probably is, that trees being mostly deep rooted and shading the ground are not so much effected by drought as small plants. The linden or basswood, as it is called in the north, is so highly prized for its abundant yield of honey, that many Bee-keepers are planting orchards of it for their Bees. Mr. Furman of Iowa states that he has known a single stock of Bees to gather fifteen pounds of honey in a day from basswood blossoms. Mr. Hosmer of Minnesota, says that one of his stocks gathered fifty-three pounds. Mr. Cogshala of New York, says that his Bees gathered six barrels of honey from basswood in the time that it took the same Bees to gather one barrel from white clover, and that the basswood honey was better in quality. The yellow poplar yields as much honey as the linden, but the quality of the honey is not quite so good. Other trees might be mentioned of smaller growth than the above, but scarcely less value either for honey or ornament, as the sourwood and serviceberry. But those who care to give the matter any attention can easily learn what kinds to select, and to the consideration of all such I respectfully commend the subject.—*D. Burbank, in Farmers' Home Journal.*

A PLANT DESTRUCTIVE TO BEES.—The large-podded milk weed, almost invariably causes the death of every Bee alighting upon it. The Bee either adheres to the plant or else bears away a small scale sticking to its feet, and cripples itself fatally in attempting to remove the annoyance. — *Agricultural Report.*

"He may be regarded as a master in Bee-culture who knows how to winter his stock in a healthy condition, with the least loss of Bees, the smallest consumption of stores, and with the combs unsoiled."—*Ex.*

The cross of the Italian drone and black queen is preferable to the other cross.

American Bee Journal.

W. F. CLARKE, EDITOR.

CHICAGO, FEBRUARY, 1874.

Bee-keepers' Meetings.

The importance of association, when there are common objects to carry out, is readily conceded by all intelligent people. The value of consultation about matters, in regard to which there is room for difference of opinion and practice, is also generally admitted. Our business interests are represented and protected by Boards of Trade. We have Agricultural Societies, Farmers' Clubs, and Granges, to look after the great foundation industry. Conventions and meetings, almost without number, are held to advance the multifarious enterprises, which have been set on foot by the active mind of man. No sensible individual undertakes to carry out, solitary and alone, the ends he is aiming to accomplish, when there are others, equally anxious to succeed in the same direction, with whom he can consult and co-operate.

One would suppose that very little reflection or argument would suffice to convince Bee-keepers that their interests call for organization and association. Yet it seems more difficult to bring them together for united counsel and action, than almost any other class of people who have interests in common. The patent hive business is no doubt largely responsible for this. It has introduced and fostered an Ishmaelitish spirit among Bee-keepers. Apiculture has come to be regarded, not as a peaceful field where all might work harmoniously, and reap a harvest of sweetness, but rather as a hunting ground, where

prey is to be chased and spoil secured. We are glad to know that this state of things is passing away, and that a better day is manifestly coming, in which the clashing of pecuniary interests and antagonistic aims shall no longer operate to keep apiarians asunder. Already some progress has been made in the establishment of organizations, and the holding of meetings, but it is only a few of the great host of Bee-keepers who have allied themselves together, and met as "friends in council" for the advancement of apiculture. Indifference has, no doubt, had quite as much to do in keeping Bee-men apart, as business rivalry. It is remarkable how apathetic some are, even when their own advantage is manifestly involved. We do not believe that any thoughtful attendant at a Bee meeting, where experienced apiarians gave their views freely and fully, ever went away without feeling that the cost of coming was a mere bagatelle, compared with the benefit obtained. A single wise suggestion may turn the scale of a year's operations of the apiary, from loss to profit. Questions may be asked, and answered, to which no Bee-book furnishes a reply. The mind may obtain a clue, or be put upon a track, the results of which will be highly valuable. A Bee meeting is a school for beginners, and a college for those more advanced. We can help on the cause of apiculture on such an occasion, both by imparting what we know to others less informed than ourselves, and by sitting at the feet of apiarian doctors who have far outstripped us. There is moreover, the pleasure and profit connected with making the personal acquaintance of fellow-Bee-keepers, especially those of note, whose writings we have read with interest, and whom it is a great satisfaction to meet face to face, and

think of afterwards, as no longer strangers, but friends. Yet notwithstanding these and other obvious advantages of association, how difficult it is to obtain a large membership, or to secure a full attendance. How rarely do we read in the reports of these meetings, that they were unanimously attended, or marked by any enthusiasm. Even the National Society has never made such a muster as might reasonably have been expected at its annual sessions. Yet, if *all* had been imbued with the earnestness of *some*,—if every one had come who could as well have done so as those actually present, there would have been no cause of complaint, but rather abundant reason for jubilation. We regret to learn that the Louisville meeting was thinly attended, owing to a variety of unfavorable circumstances, but we hope this will not discourage those who from the beginning have had faith in the society, and have shown their faith by their works. Let every officer and member resolve, that the next meeting shall be the best ever held, and do all in their power to make it such. The place of meeting is conveniently central, and we have no doubt the Pennsylvania Bee men, with President Hoagland at their head, will spare no pains to make the needful preparations to secure travelling, hotel and hall accommodation, so that if there is only a grand rally from East, West, North and South, the Pittsburgh meeting of 1874 will far outstrip its predecessors.

There are other and local gatherings which ought to be well sustained. The Northeastern and several State associations, have yet to meet. Let there be an extra effort on the part of Bee-keepers to attend them. Do not grudge a little time or money. The outlay will pay you well, and be of service to others. This matter should be viewed not in

the light of inclination merely, but as a duty. Ease and comfort would perhaps dictate staying beside one's warm and cozy fireside, but if duty calls elsewhere, it is ours to obey the summons, in the assurance that the highest happiness comes in the train of doing right.

Too much stress cannot be laid on the importance of getting up and vigorously sustaining neighborhood meetings in all those localities where Bees are kept by a number of parties. Even if they are attended only by a few, they will result in much good. We do not know of a pleasanter or better method of promoting apiculture than by holding a weekly or fortnightly meeting from house to house around the little neighborhood of Bee-keepers. A case in point occurs to our recollection. It is that of three Bee-keepers who have for several years been in the habit of meeting in this way. They discuss each others' methods and experiences, read and criticize apicultural publications, and concoct questions, answers and articles for the Bee journals. It need hardly be said, that they are a most intelligent trio of Bee-keepers, and that it is a high treat to spend an evening in their company. We could wish to see their example followed wherever an association even as modestly small as theirs, can be formed and worked.

In our hurry, getting out the January Number of the AMERICAN BEE JOURNAL, several annoying errors occurred. We hope to have less of them in the future. A few corrections are important. On page 7, second line of article on "Feeding," for "keeping," read "feeding." Seventh line from top of second column, for "open," read "only window." In the third line, for "hives," read "sources."

E. Kretchmer & Co.'s Price List of Bee-Keepers' supplies is on our table. It contains 24 pages, and will be sent free to any one desiring it. Address E. Kretchmer & Co., Coburg, Iowa.

Voices from among the Hives.

J. L. DAVIS, of Holt, Ingham Co., Mich., says:—"I write this in response to Adair's observation, that the clipping of a queen's wings is an injury. Some years ago, I obtained a swarm of Bees from the woods. Brought it home in the log, just as it was found; after sawing off pieces at both ends, we set the log up in our yard for a hive. The Bees swarmed in June; after alighting, I saw the queen and caught her by the wings, and called for scissors; before they came, however, she turned around so many times, that the wings came out by the roots. I supposed this would kill her, but she lived until her sixth year, to my certain knowledge (she might have been older). Her hive swarmed once every year, and sometimes twice. I could always recognize her by her peculiar appearance, and so kept track of her. I have clipped hundreds of queen's wings since, and never thought that it gave them pain, or injured their usefulness. In clipping queen's wings, have the comb on which she is hanging up before you with the queen in sight; with the left hand take hold of her left wing as she is crawling upward; hold on just hard enough to make her grasp the comb; then with the scissors clip about half of the large wing off. In doing this keep the breath from the Bees, work slowly and carefully, and you will be satisfied."

S. SCOTT, of College Hill, O., writes:—"Our season thus far is termed an open Winter. The weather report for December stands as follows: Rain, 6½ inches; snow, 1½; clear days, 1; average temperature, 36 degrees; lowest temperature, 10 degrees, morning of 30th. In our vicinity, as far as I have learned, Bees are wintering well with those who give them care and attention. The past season was a good one for honey, both in quality and quantity. Two swarms that issued on the 5th of June gave a surplus of twenty-one and thirty-two pounds respectively, of pure comb honey, besides their homesteads full remaining untouched on the last of July. Though black Bees do well when flowers are abundant, my preference is for the Italians. We read sometimes of moth-proof hives, but it takes a strong colony of Bees to keep a

good hive moth-proof. The plan of putting split elders under hives for the worms to crawl under, is an old one; but if destroying the worms is not attended to daily, the elder will prove a hot-bed for the propagation of the insect. It is far better to spend the time in encouraging the little wren by building small boxes, four by five inches square, with inch auger holes for entrances. Their keen eyes are ever on the alert for worms and insects, of which they consume a great many daily. I think it is also a good plan to have young turkeys as well as ducks near the Apiary. They can be seen early and late among the hives watching for millers. I consider them of great value to those keeping Bees."

J. F. MONTGOMERY, of Lincoln, Tenn., writes:—"Last year Bees did but little in the way of storing surplus honey, though after the main season was over, they stored honey enough to last them through the Winter. I have now thirty-eight colonies, all in good condition except one, which has a young queen reared after the drones were all killed. On 3d of this month, Jan., I put out rye flour, and in less than an hour they were swarming around it by hundreds. I am intending to move my Bees this year a distance of ten miles, to where there is an abundance of linn. I think I can make it pay me. If I do, I will report after the season is over. I use Murphy's honey extractor, which I like better than any other I have seen."

N. M. CARPENTER, of Ellington, N. Y., writes:—"Although the past two Winters have nearly cleaned out my Bees, my enthusiasm has not abated in the least, nor can I get along without the old AMERICAN BEE JOURNAL. All through this section of country, nine-tenths of the Bees died last Winter. But the past season has been a good one, and the business is rapidly renewing again, and with a few favorable years will be as prosperous as ever. No theory which I have ever seen offered in any of the Bee journals in relation to the late mortality among Bees is at all satisfactory to me; nor will I at this time attempt to offer any of my own, although I feel quite confident that I could go into Winter quarters with forty-eight swarms, and come out with more than one, which was my experience last Winter."

W. H. TENANT, of Eureka, Wis., writes:—"I wintered thirty-six swarms of Bees without any loss. I increased them to seventy swarms, and sold a little over \$400 worth of Honey Bees. At this date they appear to be in a healthy condition. Success to the AMERICAN BEE JOURNAL and all its subscribers."

ELI COBLE, of Cornersville, Tenn., writes:—"Bee-keeping is in a very backward state in this section of country. The Frame Hive has not been used here more than two years, though I believe, taking everything into consideration, we have as good a locality for Bee-keeping as there is in the United States. We winter on their Summer stands, the hive remaining as it does during the honey harvest. Our Bees are Wintering finely, so far as we can judge by inspecting them. I have ninety colonies that I expect to come through all right, unless some accident happens. Our Bees Wintered well last Winter, and so far this Winter has been nothing to compare with the last, for cold weather. I wish the AMERICAN BEE JOURNAL success."

R. B. PRICE, of Delphi, O., writes:—"My little girl was stung on the bottom of her foot by two Bees, producing the usual symptoms. We first saw a red streak where one of the Bees had stung her, which soon spread until she became a brilliant scarlet, from head to foot. She looked as though she would have convulsions, and having a pitcher of ice water upon the table I bathed her head, which gave her temporary relief; whenever such symptoms appeared I applied the ice water I also gave her a dose of whisky. For several hours afterwards she had fever and thirst. My Bees are Wintering well so far; I am trying friend Muth's plan, and like it well, as it keeps the combs dry and Bees comfortable."

GEORGE O. TOMPKINS, of White Plains, N. Y., writes:—"The January number of the AMERICAN BEE JOURNAL has come to hand. Its new dress makes a very neat appearance, and I hope it may give better satisfaction than ever in the hands of its new manager."

AARON A. TRULLINGER, of Lake City, Ia., writes:—"My Bees Wintered well last Winter. I kept them up in my chamber. I am trying the cellar this Winter. I doubled my stocks

last Summer, and got forty pounds of box honey, per hive. My Bees went into Winter quarters in good order."

S. HOAGLAND, of Mercer County, Pa., says that "Our Bees are Wintering finely up to date."

MRS. R— would like to enquire of any one who knows, whether Santa Clara, California, is a good locality for Bees.

"A LADY" wishes to ask "Novice" the following question, viz: "In seasons when honey, the natural food of the Bee, becomes so impure as to poison the Bees, is it not also unfit for table use?"

H. M. NOBLE, of Mount Pleasant, Iowa, writes:—"I have had very poor luck with Bees for the last three Winters. In 1870 and 1871, I lost twelve out of thirty-five swarms. In 1872 and 1872, I lost twenty-two out of forty swarms. In 1872 and 1873, I lost twenty-nine out of thirty two swarms. This left me with three swarms last Spring, and those very weak. I increased them to thirteen, and got three boxes of honey and one and a half gallon of extracted honey, and have now got them in a cave where they will not be likely to freeze, though they may die some other way."

C. L. YOUNG, of Ohio, writes:—"From circumstances connected with my Bees, I have good reason to believe that some of them have lived more than two years. According to my opinion, Mr. Quinby is the nearest right, in his opinion as to the cause of the much talked of Bee disease."

JOHN BARFOOT, Wellsville, Mo., writes:—"Last season was a disastrous one for Bee keepers—Bees scarcely sustaining themselves. There was but little surplus honey. The strong probability now is, that nearly all old hives will winter over, the Winter so far being mild and wet."

W. F. STANDEFER, Dry Grove, Mississippi, writes:—"Our County Bee-Keepers' Society meets again on the first Saturday in February, and will, hereafter, hold Quarterly meetings."

Our Correspondents will oblige by writing with ink. Pencil writing, after being rubbed in the mails, &c., becomes indistinct, and our compositors find it difficult to read.

American Bee Journal.

THOMAS G. NEWMAN, MANAGER.

RATES OF ADVERTISING.

SOLID NONPAREIL MEASURE.

First insertion, per line.....	\$0.20
Each subsequent insertion, per line.....	15
One square, 10 lines or less, first insertion.....	2.00
Editorial Notices, solid Nonpareil, per line.....	.30

Next page to Business Department and second and last page of cover, double rates.

A deduction of 20 per cent. made on advertisements inserted three months, 30 per cent. for six months, and 50 per cent. for one year.

Twelve lines of solid Nonpareil occupy one inch. One column contains 96 lines of solid Nonpareil.

Bills of regular Advertisers payable quarterly, if inserted three months or more. If inserted for less than three months, payable monthly. Transient advertisements, cash in advance. We adhere strictly to our printed rates.

Address all communications and remittances to the Manager.

Honey Markets.

CHICAGO.—Choice white comb honey, 28 @30c; fair to good, 24@28c. Extracted, choice white, 14@16c; fair to good, 10@12c. Strained 8@10c.

CINCINNATI.—Quotations from 'Chas. F. Muth, 976 Central Ave.

Comb honey 15@35c, according to the condition of the honey and the size of the box or frame. Extracted choice white clover honey, 16 cts. $\frac{7}{8}$ lb. Choice extracted honey 16@18 cts. $\frac{7}{8}$ lb.

ST. LOUIS.—Quotations from W. G. Smith, 419 North Main st.

Choice white comb, 25@29c; fair to good, 16@22c. Extracted, Choice white clover, 16@18c; choice basswood honey, 14@16c; fair to good, extracted, 8@12c; Strained, 6@10c.

NEW YORK.—Quotations from E. A. Walker, 135 Oakland st., Greenpoint L. I.

The sale of honey is dull here, and a large quantity is now upon the market. The prices rule as follows:

White honey in small glass boxes, 25c; dark 15@20c; Strained honey 8@12c. Cuban honey, \$1.00 $\frac{7}{8}$ gal. St. Domingo, and Mexican, 90@95 $\frac{7}{8}$ gal.

The "National Bee Journal," published at Des Moines, Iowa, by Mrs. Ellen S. Tupper, is on our table. The January number is a good one. We have made arrangements to club the "National," with the old and reliable AMERICAN BEE JOURNAL, for \$3.00 a year, in advance,—thus saving our subscribers \$1.00.

Any numbers that fail to reach subscribers by fault of mail, we are at all times ready to send, on application, free of charge.

New Advertisements.

Our fresh announcements this month are numerous. Our subscribers will be interested as well as remunerated by reading all our advertisements over carefully.

E. J. Worst announces his reduced prices for Italian Queens for 1874, and also Premium Poultry Eggs.

Jas. J. H. Gregory's Catalogue of Vegetable and Flower Seeds is splendidly illustrated; and will be sent to all desiring it, free of cost.

The firm of Baldwin Brothers has been dissolved. L. W. Baldwin is breeding Queens, and quotes prices.

E. W. Hale is ready for an engagement to take charge of an apiary.

Wm. W. Cary invites every reader of the AMERICAN BEE JOURNAL to send for his circular of prices for pure-bred Queens.

Mrs. Tupper calls attention to her late purchase of the "National Bee Journal," and would not refuse subscriptions accompanied with the cash.

THE ILLUSTRATED JOURNAL, with its magnificent chromo, is announced; also its club rates with the AMERICAN BEE JOURNAL.

Nevins' Straw Mats are now on the market, and may be obtained of Charles F. Muth.

D. A. Pike has Italian Bees and Italian Queens for sale.

C. F. Muth's new announcements are: "Clover Seed," "Honey Plants" and "Honey Jars," with new price list.

An illustrated annual, entitled "The Busy Bee," is announced at 10 cents.

Dr. J. P. H. Brown mentions his importation and breeding of Italian Queens.

The Western Agriculturist is published at \$1 a year, and gives a Chromo entitled "The Shepherdess."

J. W. Winder has just finished his "New Honey Extractor," and promises to lay it before the readers of the AMERICAN BEE JOURNAL in the March number.

Adam Grimm offers to sell 400 colonies of Italian Bees, and quotes prices.

S. W. Cole will supply full colonies of Italian Bees and Queens, &c., &c.

J. E. Moore invites you to send for his circular giving directions for introducing Queens, &c.

J. H. Stevens will buy honey in St. Louis, and invites consignments.

HEYES' LINGERIN.—Having used this article in our family for years, we can confidently recommend it. See advertisement.

We want a few copies of the July and December Numbers of the AMERICAN BEE JOURNAL for 1873, and will pay twenty-five cents each for them.

To Those Interested in Bee Culture.

At the sixth annual meeting of the Michigan Bee-Keepers' Association, it was decided to hold a special meeting at Kalamazoo, to commence Wednesday, May 6, 1874. It is especially desired that all members be present, and, in behalf of the Association, we urge every Bee-keeper in Michigan to attend. A cordial invitation is also extended to all persons interested in the science of Bee-culture whether residing in this or other States. Surely much good may be derived from a comparison of experiences next Spring, and from the able papers that will then be presented. Timely notice will be given of all further arrangements. Address communications or inquiries concerning the subject to

FRANK BENTON, Sec'y.

Shelby, Oceana Co., Mich.

Newspaper Decisions.

1. Any person who takes a paper regularly from the post-office—whether directed to his name or another's, or whether he has subscribed or not—is responsible for the payment.
2. If any person orders his paper discontinued, he must pay all arrearages, or the publisher may continue to send it, until payment is made, and collect the whole amount—whether the paper is taken from the office or not.
3. The courts have decided that refusing to take newspapers and periodicals from the post-office, or removing and leaving them uncalled for, is *prima facie* evidence of intentional fraud.

Clubbing Bee Journals.

Several of our subscribers have requested us to say what we will club with other Bee publications for. We therefore quote the following:

The AMERICAN BEE JOURNAL and the "National Bee Journal," by Mrs. Tupper, for \$3.00 a year in advance.

The AMERICAN BEE JOURNAL and either "The Bee-keepers Magazine," or the "Agriculturist," by H. A. King, for \$2.50.

The AMERICAN BEE JOURNAL and "Novice's Gleanings," for \$2.50.

The AMERICAN BEE JOURNAL and the "National," the "Magazine," and "Gleanings," for \$4.00 in advance.

All the above one year, \$5.00.

Any of the above and the "Illustrated Journal," and our magnificent Large Fruit Chromo, for \$2.00, in addition to the RETAIL price of the Bee publication selected.

Publishers needing cuts or engravings, will do well to address the Manager of the American Publishing Company, who have a large supply for sale that have appeared in "The Illustrated Journal."

Should any subscriber wish to discontinue taking our JOURNAL, he should address a letter to the Manager, and enclose the amount due, and it will then cease to visit him. Any other course is dishonorable.

NEWLY PATENTED HIVES. — Three Bee Hives have lately been patented. Wm. S. Hough, Canada; Leonidas Adams, Mason City, Ills.; and Leander J. Diehl, Butler, Ind. are the patentees.

After February 1, 1874, we shall mail a Printed Receipt to every one sending money to this office. Those who do not get such Receipt by return mail, should notify us, that we may ascertain the cause of delay.

To new subscribers, we will send the AMERICAN BEE JOURNAL for three months for 25 cents, on trial. Now is the time to send in hundreds of such trial subscribers. Who wants to TRY IT?

Any one having paid \$2.00 for the AMERICAN BEE JOURNAL for 1874, and desiring to obtain the "Illustrated Journal," for 1874, and our magnificent Fruit Chromo, may send us \$1.50 more and obtain them.

We shall, hereafter, publish a Honey Market Report each month, so that Bee-keepers will know how honey is selling, not only in Chicago, but in St. Louis, Cincinnati, San Francisco, and New York. We shall do our utmost to make the JOURNAL in all respects an organ for Bee-keepers throughout the Union. We shall take pains to ascertain who is responsible, so that none shall be wronged out of their dues.

The "Home Grange" is published at St. Louis in the interest of farmers. It contains also profitable miscellaneous reading for the fireside. It is issued monthly, at the low price of \$1.50 a year.

Wilson's Herald of Health is issued monthly by the Southern Publishing Co., of Atlanta, Ga. Besides being a periodical devoted to the science of health, it has a department of Agriculture and Domestic Economy. It is the only popular work of the kind published south of New York. Its terms are \$2.00 a year.

Eight cents is now the fee for registered letters—instead of fifteen cents, as heretofore. Let all register, who cannot obtain a money order, but let none register who can.

Those who are owing for advertisements for the past year are requested to send the money to this office without delay, as we are closing up the old books.

Single Copies of the AMERICAN BEE JOURNAL are worth 20 cents each.

Not one letter in ten thousand is lost by mail, if rightly directed.

Additional names to a club already formed may be sent at any time at the same club rate. Upon the wrapper of every copy of the JOURNAL will be found the date at which subscriptions expire.

Subscribers wishing to change their post-office address, should mention their *old* address, as well as the one to which they wish it changed.

JOURNALS are forwarded until an explicit order is received by the publishers for the discontinuance, and until payment of all arrearages is made as required by law.

When a subscriber sends money in payment for the AMERICAN BEE JOURNAL, he should state to what time he thinks it pays, so that we can compare it with our books, and thus prevent mistakes.

Persons writing to this office should either write their name, Post-office, County and State plainly, or else cut off the label from the wrapper of their paper and enclose it.

Every subscriber is requested to look at the date after his name on the wrapper label of this *Number* of the AMERICAN BEE JOURNAL, and if it is not correct send a postal card to this office, and tell us and we will make it right at *once*.

The postage on this paper is only twelve cents a year, if paid quarterly or yearly in advance at the post-office where received. We prepay postage to Canada, and require twelve cents extra, except when Canada money is sent.

We have received four chromos from H. A. King, of New York, which he offers as premiums to subscribers for his *Bee Magazine* and *National Agriculturist*. They are: The Flowers of Paradise, The Cross, a Landscape Scene on the Rhine, and a Revolutionary Scene. The chromos are very fine indeed, and will satisfy all who get them. They are large and well executed.

THE MILLENARIAN.

The MILLENARIAN advocates the personal return of Christ to our earth, his literal reign over Israel and the nations, the resurrection of the holy dead at the commencement of the Millennium, and their reign with Christ during the Millennial day and beyond. It also advocates the necessity of a life of trust and obedience in order to a participation in that kingdom which shall stand forever. The literal fulfillment of Prophecy, and the signs which foreshadow the nearness and certainty of His coming who is the Desire of Nations are also specially examined.

TERMS: \$1.00 per year, in advance. Single Copies 10 cents. Address all orders to,

H. V. REED,
No. 27, Tribune Building, Chicago.

Advertisements for THE AMERICAN BEE JOURNAL must reach the office by the 25th. of the month, in order to insure insertion in the succeeding number.

NEW ADVERTISEMENTS.

NOTICE TO ALL !

CUTS and descriptions of a New Honey Extractor, made entirely different, and warranted superior to all will appear in March Number of the AMERICAN BEE JOURNAL. Our 24 page Illustrated Circular and Apiarian-supply Price List for 1874 is now ready, with the **New Honey Extractor**. It will be forwarded to any address on receipt of a three cent stamp.

Address, J. W. WINDER, Importer and Breeder of Italian Queen Bees.
feb74m1 132 Fourth st. Cincinnati, O.

RAPE AND RAPP.

WE herewith tender our thanks to Bee-Keepers for past favors, and are again ready to furnish Rape and Rapp, at 35 cents per pound. Three pounds sow an acre. Shall have a pamphlet ready by March 1st, treating on its culture, with other interesting matter, which will be sent FREE, to those ordering 3 lbs; To all others, 10 cents. Address,

feb74m4 KRUSCHKE BROS., Berlin, Wis.

SALE OF 400 COLONIES

OF

ITALIAN HONEY BEES

HAVING accepted the office of cashier of the Farmers and Merchants Bank of Jefferson, lately organized in this place, I will be unable to care for all the 850 Stocks of Honey Bees I have now on hand. I will therefore

Sell 400 of Them.

These Bees are all pure Italians, and will be sold at the following prices:

Single colonies, or in small numbers....	\$13.00
Ten to Twenty colonies, per colony,....	12.00
Twenty, or more " " " " " " " " " " " "	11.50

These Bees will be delivered free of charge at the express station in Jefferson, and safe arrival at the nearest express station of the purchaser guaranteed.

Each of these stocks is in an eight frame Langstroth movable comb hive, in good condition, and with honey enough to last them to May 15, or longer.

TERMS: Cash in advance.

feb74m3 ADAM GRIMM,
Jefferson, Wis.

1865—1874.

THE HONEY HOUSE

C. O. PERRINE,

Corner Lake and Market Sts.,

CHICAGO.

Be not deceived by imitations.